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## NOTICE OF ALLOWANCE AND FEE(S) DUE

25944 7590 09/08/2009

OLIFF & BERRIDGE, PLC  
P.O. BOX 320850  
ALEXANDRIA, VA 22320-4850

EXAMINER

KAU, STEVEN Y

ART UNIT

PAPER NUMBER

2625

DATE MAILED: 09/08/2009

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/660,572

09/12/2003

Makoto Sasaki

117128

5285

TITLE OF INVENTION: COLOR PROCESSING METHOD, COLOR PROCESSING APPARATUS, AND STORAGE MEDIUM

APPLN. TYPE	SMALL ENTITY	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	NO	\$1510	\$300	\$0	\$1810	12/08/2009

**THE APPLICATION IDENTIFIED ABOVE HAS BEEN EXAMINED AND IS ALLOWED FOR ISSUANCE AS A PATENT. PROSECUTION ON THE MERITS IS CLOSED. THIS NOTICE OF ALLOWANCE IS NOT A GRANT OF PATENT RIGHTS. THIS APPLICATION IS SUBJECT TO WITHDRAWAL FROM ISSUE AT THE INITIATIVE OF THE OFFICE OR UPON PETITION BY THE APPLICANT. SEE 37 CFR 1.313 AND MPEP 1308.**

**THE ISSUE FEE AND PUBLICATION FEE (IF REQUIRED) MUST BE PAID WITHIN THREE MONTHS FROM THE MAILING DATE OF THIS NOTICE OR THIS APPLICATION SHALL BE REGARDED AS ABANDONED. THIS STATUTORY PERIOD CANNOT BE EXTENDED. SEE 35 U.S.C. 151. THE ISSUE FEE DUE INDICATED ABOVE DOES NOT REFLECT A CREDIT FOR ANY PREVIOUSLY PAID ISSUE FEE IN THIS APPLICATION. IF AN ISSUE FEE HAS PREVIOUSLY BEEN PAID IN THIS APPLICATION (AS SHOWN ABOVE), THE RETURN OF PART B OF THIS FORM WILL BE CONSIDERED A REQUEST TO REAPPLY THE PREVIOUSLY PAID ISSUE FEE TOWARD THE ISSUE FEE NOW DUE.**

### HOW TO REPLY TO THIS NOTICE:

#### I. Review the SMALL ENTITY status shown above.

If the SMALL ENTITY is shown as YES, verify your current SMALL ENTITY status:

A. If the status is the same, pay the TOTAL FEE(S) DUE shown above.

B. If the status above is to be removed, check box 5b on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and twice the amount of the ISSUE FEE shown above, or

If the SMALL ENTITY is shown as NO:

A. Pay TOTAL FEE(S) DUE shown above, or

B. If applicant claimed SMALL ENTITY status before, or is now claiming SMALL ENTITY status, check box 5a on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and 1/2 the ISSUE FEE shown above.

II. PART B - FEE(S) TRANSMITTAL, or its equivalent, must be completed and returned to the United States Patent and Trademark Office (USPTO) with your ISSUE FEE and PUBLICATION FEE (if required). If you are charging the fee(s) to your deposit account, section "4b" of Part B - Fee(s) Transmittal should be completed and an extra copy of the form should be submitted. If an equivalent of Part B is filed, a request to reapply a previously paid issue fee must be clearly made, and delays in processing may occur due to the difficulty in recognizing the paper as an equivalent of Part B.

III. All communications regarding this application must give the application number. Please direct all communications prior to issuance to Mail Stop ISSUE FEE unless advised to the contrary.

**IMPORTANT REMINDER: Utility patents issuing on applications filed on or after Dec. 12, 1980 may require payment of maintenance fees. It is patentee's responsibility to ensure timely payment of maintenance fees when due.**

# **PART B - FEE(S) TRANSMITTAL**

**Complete and send this form, together with applicable fee(s), to: Mail Mail Stop ISSUE FEE  
Commissioner for Patents  
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INSTRUCTIONS: This form should be used for transmitting the ISSUE FEE and PUBLICATION FEE (if required). Blocks 1 through 5 should be completed where appropriate. All further correspondence including the Patent, advance orders and notification of maintenance fees will be mailed to the current correspondence address as indicated unless corrected below or directed otherwise in Block 1, by (a) specifying a new correspondence address; and/or (b) indicating a separate "FEE ADDRESS" for maintenance fee notifications.

CURRENT CORRESPONDENCE ADDRESS (Note: Use Block 1 for any change of address)

25944 7590 09/08/2009

**OLIFF & BERRIDGE, PLC**  
P.O. BOX 320850  
ALEXANDRIA, VA 22320-4850

Note: A certificate of mailing can only be used for domestic mailings of the Fee(s) Transmittal. This certificate cannot be used for any other accompanying papers. Each additional paper, such as an assignment or formal drawing, must have its own certificate of mailing or transmission.

## **Certificate of Mailing or Transmission**

I hereby certify that this Fee(s) Transmittal is being deposited with the United States Postal Service with sufficient postage for first class mail in an envelope addressed to the Mail Stop ISSUE FEE address above, or being facsimile transmitted to the USPTO (571) 273-2885, on the date indicated below.

(Depositor's name)
(Signature)
(Date)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/660,572 09/12/2003 Makoto Sasaki 117128 5285

TITLE OF INVENTION: COLOR PROCESSING METHOD, COLOR PROCESSING APPARATUS, AND STORAGE MEDIUM

APPLN. TYPE	SMALL ENTITY	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
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nonprovisional NO \$1510 \$300 \$0 \$1810 12/08/2009

EXAMINER	ART UNIT	CLASS-SUBCLASS
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KAU, STEVEN Y 2625 358-001900

1. Change of correspondence address or indication of "Fee Address" (37 CFR 1.363).

☐ Change of correspondence address (or Change of Correspondence Address form PTO/SB/122) attached.

☐ "Fee Address" indication (or "Fee Address" Indication form PTO/SB/47; Rev 03-02 or more recent) attached. **Use of a Customer Number is required.**

2. For printing on the patent front page, list

(1) the names of up to 3 registered patent attorneys or agents OR, alternatively, 1 \_\_\_\_\_

(2) the name of a single firm (having as a member a registered attorney or agent) and the names of up to 2 registered patent attorneys or agents. If no name is listed, no name will be printed. 2 \_\_\_\_\_

3 \_\_\_\_\_

3. ASSIGNEE NAME AND RESIDENCE DATA TO BE PRINTED ON THE PATENT (print or type)

PLEASE NOTE: Unless an assignee is identified below, no assignee data will appear on the patent. If an assignee is identified below, the document has been filed for recordation as set forth in 37 CFR 3.11. Completion of this form is NOT a substitute for filing an assignment.

(A) NAME OF ASSIGNEE

(B) RESIDENCE: (CITY and STATE OR COUNTRY)

Please check the appropriate assignee category or categories (will not be printed on the patent) : ☐ Individual ☐ Corporation or other private group entity ☐ Government

4a. The following fee(s) are submitted:

- ☐ Issue Fee  
☐ Publication Fee (No small entity discount permitted)  
☐ Advance Order - # of Copies \_\_\_\_\_

4b. Payment of Fee(s); (Please first reapply any previously paid issue fee shown above)

- ☐ A check is enclosed.  
☐ Payment by credit card. Form PTO-2038 is attached.  
☐ The Director is hereby authorized to charge the required fee(s), any deficiency, or credit any overpayment, to Deposit Account Number \_\_\_\_\_ (enclose an extra copy of this form).

5. Change in Entity Status (from status indicated above)

- ☐ a. Applicant claims SMALL ENTITY status. See 37 CFR 1.27. ☐ b. Applicant is no longer claiming SMALL ENTITY status. See 37 CFR 1.27(g)(2).

NOTE: The Issue Fee and Publication Fee (if required) will not be accepted from anyone other than the applicant; a registered attorney or agent; or the assignee or other party in interest as shown by the records of the United States Patent and Trademark Office.

Authorized Signature \_\_\_\_\_

Date \_\_\_\_\_

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This collection of information is required by 37 CFR 1.311. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, Virginia 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, Virginia 22313-1450.

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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/660,572	09/12/2003	Makoto Sasaki	117128	5285
25944	7590	09/08/2009	EXAMINER	
OLIFF & BERRIDGE, PLC P.O. BOX 320850 ALEXANDRIA, VA 22320-4850			KAU, STEVEN Y	
			ART UNIT	PAPER NUMBER
			2625	
DATE MAILED: 09/08/2009				

## Determination of Patent Term Adjustment under 35 U.S.C. 154 (b) (application filed on or after May 29, 2000)

The Patent Term Adjustment to date is 1129 day(s). If the issue fee is paid on the date that is three months after the mailing date of this notice and the patent issues on the Tuesday before the date that is 28 weeks (six and a half months) after the mailing date of this notice, the Patent Term Adjustment will be 1129 day(s).

If a Continued Prosecution Application (CPA) was filed in the above-identified application, the filing date that determines Patent Term Adjustment is the filing date of the most recent CPA.

Applicant will be able to obtain more detailed information by accessing the Patent Application Information Retrieval (PAIR) WEB site (<http://pair.uspto.gov>).

Any questions regarding the Patent Term Extension or Adjustment determination should be directed to the Office of Patent Legal Administration at (571)-272-7702. Questions relating to issue and publication fee payments should be directed to the Customer Service Center of the Office of Patent Publication at 1-(888)-786-0101 or (571)-272-4200.

<b>Notice of Allowability</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/660,572	SASAKI, MAKOTO	
	<b>Examiner</b>	<b>Art Unit</b>	
	STEVEN KAU	2625	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--**

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 6/3/2009.
2. ☒ The allowed claim(s) is/are 1-20.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All    b) ☐ Some\*    c) ☐ None    of the:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).  
\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS ( as "replacement sheets") must be submitted.  
(a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review ( PTO-948) attached  
1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.  
(b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.  
**Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).**
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

- |  |  |
|--|--|
| 1. <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                | 5. <input type="checkbox"/> Notice of Informal Patent Application                      |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 6. <input type="checkbox"/> Interview Summary (PTO-413),<br>Paper No./Mail Date _____. |
| 3. <input type="checkbox"/> Information Disclosure Statements (PTO/SB/08),<br>Paper No./Mail Date _____    | 7. <input type="checkbox"/> Examiner's Amendment/Comment                               |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit<br>of Biological Material | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance   |
|  | 9. <input type="checkbox"/> Other _____.   |

/Steven Kau/  
Examiner, Art Unit 2625  
September 2, 2009

/King Y. Poon/  
Supervisory Patent Examiner, Art Unit 2625

## **DETAILED ACTION**

### ***Allowable Subject Matter***

1. The following is an examiner's statement of reason for allowance.

The primary reasons for allowance for claims 1-20 are the inclusion of the limitations of the color processing apparatus of Claim 10 and 11, the printer of Claim 20, the method of Claim 1, and the storage medium of Claim 19, for color processing by adjusting colors of a specific region by using the decided target color.

In particular, the function of the apparatus of Claims 10, the printer of claim 20, and the step of the method of claims 1 and 19, have the inclusion of the claim element, "the reproduction color being located between the representative color and the target color, and the reproduction color having a reproduction distance, which is a distance between the representative color and the reproduction color, wherein the reproduction distance decreases with increase in the color adjustment distance when the color adjustment distance is larger than a certain value", and the function of the apparatus of Claim 11, has the inclusion of the claim element, "a reproduction color calculation unit of a computer that calculates the reproduction color on the basis of the color adjustment distance and the reproduction distance coefficient, wherein the reproduction distance coefficient increases with increase in the color adjustment distance when the color adjustment distance is smaller than a certain distance and decreases with increase in the color adjustment distance when the color adjustment distance is larger than the certain value", where the cited limitations make the invention distinct from the prior arts.

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With respect to claim 20, a printer for adjusting colors of a specific region, prior art Kojima et al (US 6,917,704) teaches a printer comprising: a color processing device, including a computer, for adjusting colors of a specific region, which is a subject of the adjustment in a color image, wherein the color processing device includes: a color adjustment distance calculation section that calculates a color adjustment distance, which is an Euclidean distance in a color space between a representative color in the color space representing the specific region in the color image and a target color, which is a target of the adjustment and also defined in the color space, on the basis of the representative color and the target color; and a reproduction color decision section that decides a reproduction color in the color space expressing the representative color of the specific region after the adjustment on the basis of the color adjustment distance, wherein the reproduction color is located in the color space between the representative color and the target color, and the reproduction color having a reproduction distance, which is a distance between the representative color and the reproduction color.

However, Kojima et al alone or combining with the prior arts in the record, i.e. Le (US 6,608,942) and Hiratsuka et al (US 6,108,441) do not teach the limitations of Claims 1, 10, 19 and 20, recite, "wherein the reproduction distance increases with increase in the color adjustment distance when the color adjustment distance is smaller than a certain value and decreases with increase in the color adjustment distance when the color adjustment distance is larger than a certain value."

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With respect to Claim 11, a color processing apparatus for adjusting colors of a specific region, which is a subject of the adjustment in a color image, prior art Kojima et al (US 6,917,704) teaches a color adjustment distance calculation unit of a computer that calculates a color adjustment distance, which is an Euclidean distance in a color space between a representative color in the color space representing the specific region in the color image and a target color, which is a target of the adjustment and also defined in the color space, on the basis of the representative color and the target color; a reproduction distance coefficient calculation unit of a computer that calculates a reproduction distance coefficient, which is used to calculate a reproduction color in the color space expressing the representative color of the specific region after color adjustment, on the basis of the color adjustment distance, the reproduction distance coefficient being a distance between the representative color and the reproduction color.

However, Kojima et al alone or combining with the prior arts in the record, i.e. Le (US 6,608,942) and Hiratsuka et al (US 6,108,441) do not teach the limitations of Claim 1, recite, “a reproduction color calculation unit of a computer that calculates the reproduction color on the basis of the color adjustment distance and the reproduction distance coefficient, wherein the reproduction distance coefficient increases with increase in the color adjustment distance when the color adjustment distance is smaller than a certain distance and decreases with increase in the color adjustment distance when the color adjustment distance is larger than the certain value”.

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In addition, applicant's arguments, "As discussed during the interview, while a target color is selected based on the alleged maximum "variance" in Kojima, reproduction color between a representative color and the target color is based on a comparison with an "average" value of a region in Kojima (col. 5, lines 28-48). In particular, color values are changed to "0" or "1" depending on whether each pixel is above or below the average value for the image region, and thus not based on the "variance." Thus, regardless of whether a color adjustment distance increases or decreases, the value for the adjusted color is based on being below or above the average of the region. That is, even values below the average that are turned to "0" are all equally set to "0" regardless of distance to a target color. Thus, one of ordinary skill in the art would not have considered the teachings on cols. 4-6 of Kojima to teach a decrease the reproduction distance when the color adjustment distance is large than a certain value, such as shown in samples F and G of Applicant's Fig. 6."

"As also discussed during the interview, the alleged maximum "variance" is determined based on an individual color component, such as one of R, G or B. The "variance" is taught in Kojima in equation (2) (col. 5, lines 50-60) to be the sum of differences between individual pixels and the average pixel value for that individual color component (R, G or B)."

"This comparison of values with respect to a single color component of a color space is not a color adjustment distance in a color space between a representative color and a target color, which in the specification is defined as an "Euclidean" distance in a color space (Applicant's pg. 9) between two colors in the color space. Instead, as



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discussed, the variances are just one component of RGB and refer to a sum of differences. Thus, the alleged "variance" does not correspond to a distance in the color space between a target color and a representative color, but is instead a value used to define and set the target value with respect to an individual color component. Should the Examiner disagree, the Examiner is requested to clarify how a 'variance' as defined in Kojima would be understood by one of ordinary skill in the art to be equated to a distance as claimed" (pages 11-12, Remarks, 6/3/2009) are persuasive. Thus, the invention appears to be a unique and non-obviousness invention.

Because of these reasons, the independent claims 1, 10, 11, 19, and 20 are allowable. Claims 2-9, 16-18, and 12-15 are also allowable because of their dependence to claims 1, 10, and 11, respectively.

### ***Reference Prior Arts***

2. The closest prior arts in the record are Kojima et al (US 6,917,704), Le (US 6,608,942), Hiratsuka et al (Hiratsuka) (US 6,108,441), Caruthers et al (Caruthers) (US 6,575,096), Kim et al (US-2002/0090133), and MATSUGU, MASAKAZ (US-2002/0044691).

### ***Conclusion***

3. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Steven Kau whose telephone number is 571-270-1120

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and fax number is 571-270-2120. The examiner can normally be reached on M-F, 8:30am-5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, King Poon can be reached on 571-272-7440. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Steven Kau/  
Examiner, Art Unit 2625  
September 2, 2009

/King Y. Poon/  
Supervisory Patent Examiner, Art  
Unit 2625